

Application No.: 09/980,483Docket No.: 324-140**Amendments to the Claims:**

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1-16. (Cancelled)

17. (Currently amended) A terminal installation adapted to be connected to a telecommunication line for conveying network cells in ATM mode, said installation comprising:

terminals,

a cell broadcast arrangement including an input arrangement for regenerating for broadcasting to said terminals all the network cells received via a receive channel of said telecommunication line in a receive digital link, and a plurality of output arrangements coupled to the receive digital link for transmitting synchronously all cells respectively regenerated into a plurality of local loops including said terminals, and, and a collection arrangement for (a) collecting cells produced by said terminals and (b) transmitting the collected cells in an emit channel of said telecommunication line.

a cell collection arrangement including a plurality of input arrangements respectively coupled to said local loops for synchronizing and regenerating cells produced by said terminals in said loops for thereby producing regenerated cells, a plurality of buffer memories for cyclically transmitting said regenerated cells in an emit digital link cell by cell by reading only the buffer memories including at least one cell per

BEST AVAILABLE COPY

Application No.: 09/980,483**Docket No.: 324-140**

cycle, and an output arrangement for transmitting cells from said emit digital link in an emit channel of said telecommunication line.

18. (Canceled)

19. (Previously presented) A terminal installation according to claim 17, wherein said broadcast arrangement comprises a processor arrangement for marking network cells from the receive channel, and said collection arrangement comprises a processor arrangement for eliminating marked network cells broadcast to the terminals for preventing retransmission of the marked network cells in said emit channel.

20. (Currently amended) A terminal installation according to claim 17, wherein said broadcast arrangement comprises a processor arrangement coupled between said input arrangement and said plurality of output arrangements in said receive digital link for modifying the state of a predetermined field in the header of network cells and then calculating an error control field of the header, and said collector arrangement comprises a processor arrangement for prohibiting writing of marked network cells in said buffer memories and authorizing writing only of unmarked cells produced by the terminals in said buffer memories so that only said unmarked cells are transmitted in said emit digital link.

21. (Previously presented) A terminal installation according to claim 17, comprising a switch arrangement for switching ATM intercommunication cells produced

Application No.: 09/980,483**Docket No.: 324-140**

by said terminals from said collection arrangement to said broadcast arrangement in order to broadcast said intercommunication cells to said terminals with the received network cells.

22. (Currently amended) A terminal installation according to claim 1817, comprising a detector arrangement for detecting (a) empty cell locations in said receive digital link, and (b) intercommunication cells produced by said terminals in response to predetermined first addressing fields read in cells from said emit digital link and cells produced by said terminals in response to predetermined second addressing fields read in cells from said emit digital link, and a buffer memory in which detected intercommunication cells are written in response to detection of (b), and read in response to detection of (a) for thereby introducing said intercommunication cells into said empty cell locations in said receive digital link.

23. (Previously presented) A terminal installation according to claim 22, wherein each addressing field includes at least a portion of a virtual path and virtual channel identifier field in the header of an ATM cell.

24. (Previously presented) A terminal installation according to claim 22, comprising a processor arrangement for (a) marking the detected intercommunication cells by modifying the state of a predetermined field in the header of said intercommunication cells and (b) calculating error control fields in said headers of the intercommunication cells.

BEST AVAILABLE COPY

Application No.: 09/980,483**Docket No.: 324-140**

25. (Previously presented) A terminal installation according to claim 24, wherein the processor arrangement is arranged for translating first addressing fields of said detected intercommunication cells into second addressing fields in accordance with a mapping table.

26. (Previously presented) A terminal installation according to claim 20, wherein said predetermined field includes at least a portion of a flow control field.

27. (Previously presented) A terminal installation according to claim 17, wherein said broadcast arrangement and said collection arrangement are coupled by digital local loops for broadcasting all received network cells, at least one of the loops including at least one other set of broadcast arrangements and collection arrangements.

28. (Previously presented) A terminal installation according to claim 17, wherein each terminal is coupled to a receiver arrangement for receiving at least network cells broadcast from said broadcast, a processor arrangement for inserting cells produced by the terminal into empty cell locations between the broadcast network cells, and an emitter arrangement for emitting said broadcast network cells and said cells produced by said terminal to said collection means.

29. (Previously presented) A terminal installation according to claim 28, wherein said processor arrangement for inserting for each terminal comprises a

Application No.: 09/980,483**Docket No.: 324-140**

detector arrangement for detecting broadcast network cells, and for thereby prohibiting the emitting of any cell produced by said terminal during a transfer of a broadcast network cell between said receiver arrangement and said emitter arrangement, the detector arrangement being arranged for detecting empty cell locations between said broadcast network cells for thereby authorizing insertion of cells produced by said terminal into detected empty cell locations.

30. (Previously presented) A terminal installation according to claim 29, wherein, said terminal is in cascade with other terminals in a digital local loop between said broadcast arrangement and said collection arrangement, said detector arrangement for detection of empty cell location is arranged to count detected empty locations modulo the number of terminals in said digital local loop between said terminal and said collection arrangement including said terminal, in order to authorize insertion of a cell produced by said terminal only into an empty cell location whose number is equal to said number of terminals.

31. (Previously presented) A terminal installation according to claim 30, wherein said detecting arrangement for the empty cell location is arranged to authorize insertion of said cell produced by said terminal as a function of a counted number of said detected empty locations only if said empty cell locations have a frequency below a predetermined threshold.

BEST AVAILABLE COPY

Application No.: 09/980,483

Docket No.: 324-140

32. (Previously presented) A terminal installation according to claim 28, including a switching arrangement for authorizing reception of at least broadcast network cells by said receiver arrangement and emission of cells by said emitter arrangement only while said terminal is switched on, and for making a direct connection for at least broadcast network cells while said terminal is switched off.

33. (Currently amended) A method of operating a terminal installation connected to a telecommunication line conveying network cells in ATM mode, the installation including terminals, a broadcast arrangement and a collection arrangement, the method comprising:

regenerating network cells received via a receive channel of the telecommunication line in a receive digital link to produce first regenerated cells;

broadcasting from the broadcast arrangement to said terminals all the first regenerated network cells received via a receive channel of the telecommunication line;

synchronously transmitting all the first regenerated cells into a plurality of local loops;

collecting, at the collection arrangement, the first regenerated synchronously transmitted cells; cells produced by said terminals; and

at the collection arrangement synchronizing and regenerating the first regenerated cells to produce second regenerated cells, and cyclically transmitting the second regenerated cells cell by cell by reading at least one cell per cycle from a memory; and

transmitting the collected cells in an emit channel of the telecommunication line.

Application No.: 09/980,483

Docket No.: 324-140

34. (Currently amended) A method of operating a terminal installation connected to a telecommunication line conveying network cells in ATM mode, the method comprising:

regenerating network cells received by the terminal installation via a receive channel of the telecommunication line in a receive digital link to produce first regenerated cells;

broadcasting from the terminal installation to terminals of the installation all the first regenerated cells~~network cells received by the terminal installation via a receive channel of the telecommunication line;~~

synchronously transmitting all the first regenerated cells into a plurality of local loops;

collecting, at the terminal installation, the first regenerated synchronously transmitted cells~~cells produced by said terminals; and~~

at the collection arrangement synchronizing and regenerating the first regenerated cells to produce second regenerated cells, and cyclically transmitting the second regenerated cells cell by cell by reading at least one cell per cycle from a memory; and

transmitting from the terminal installation the collected cells in an emit channel of the telecommunication line.

BEST AVAILABLE COPY